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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,235	11/03/2003	Yu-Ching Huang		3773
25859	7590	04/07/2005		
WEI TE CHUNG FOXCONN INTERNATIONAL, INC. 1650 MEMOREX DRIVE SANTA CLARA, CA 95050			EXAMINER PENG, CHARLIE YU	
			ART UNIT 2883	PAPER NUMBER

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	10/700,235	HUANG ET AL.	
	Examiner	Art Unit	
	Charlie Peng	2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 10/700,235.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 9 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 5,664,037 to Weidman. Weidman teaches a WDM coupler system having four optical fibers in **Fig. 9**. The fibers are not numbered, but their respective outputs are **66** (the fiber that is associated with this output is hereon referred to as first fiber), **67** (hereon second fiber), **68** (hereon third fiber), and **69** (hereon fourth fiber). Weidman further teaches that the first and second fibers are coupled at a first coupler **60**, the first fiber extends and is coupled with the third fiber at a second coupler **64**, and the second fiber extends and is coupled with the fourth fiber at a third coupler **65**. Weidman still further teaches that a fused fiber coupler could be made by fusing (through heating) and stretching (elongating) the fibers in a tapered region. (See at least **Column 3, last paragraph**) Weidman still further teaches that the WDM coupler system receives a multiple-wavelength (λ_1 λ_2) light signal into the first fiber to the first coupler **60**, where one wavelength λ_1 is separated into the second coupler **64** and is further separated by the second coupler back into the first fiber, and the other wavelength λ_2 is transmitted to the third coupler **65** and further separated by the third coupler to the second fiber. (See at least **Fig. 9** and its detailed description) Although Weidman only teaches the WDM

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coupler system demultiplexing a two-wavelength signal in this particular embodiment, the WDM coupler system fully meets the structural limitations of the applicant's claim and therefore clearly can be used in the same manner to demultiplex a signal of a plurality of wavelengths.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be ~~negated~~^{19 C.P.} by the manner in which the invention was made.

Claims 2-8 and 10-~~15~~¹⁹ are rejected under 35 U.S.C. § 103(a) as being unpatentable over Weidman in view of U.S. Patent 6,778,852 to Xu et al. Weidman teaches the WDM coupler system having a plurality of optical fibers and fusion regions capable of demultiplexing an optical signal having a plurality of wavelengths. Weidman does not teach the WDM assembly to be placed within a quartz sleeve as disclosed in claims 2, 8, and 10. Xu teaches a double tube fiber coupler package having an inner sleeve 114 (which is a quartz tube) used to receive the coupler package. (See at least Fig. 2 and its detailed description) Although Xu only teaches using the sleeve for a single fiber coupler, the fiber coupler has substantially a same thin and elongated shape as the WDM coupler system as taught by Weidman, thus providing a reasonable expectation for success. It would have been obvious to one having ordinary skill in the art at the time the invention was made use place the WDM coupler system within the

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sleeve by Xu. The motivation would be to provide mechanical and moisture protection to the fusion regions.

Referring to claims 3 and 11, Xu teaches epoxy (which can be glue) element **122a 122b**, through which optical fibers **102 104** pass, used to form a seal around the optical fibers **102 104**.

Referring to claim 4-7, 12-15, Xu teaches two other tubes/sleeves **111 131**, both of which enclose the inner sleeve **114** (each having larger orifice diameter, and each having epoxy element **122a,b** or **136a,b** applied thereto in order to form seals). The holes of each sleeve are also sealed by washers **135a, b** and **138 a,b**. The Examiner notes that applicant uses the phrase "shrink sleeve", but no functional language was stated in the claims or specification to further discuss any possible "shrinking" of the sleeve.

Referring to claim 16-19, Weidman and Xu teach the WDM assembly and all of its structural limitations. The method of making contains all of the same limitations regarding structural components and their functions and is thus also rejected. It is noted that Weidman and Xu do not teach cleaving excess fiber outside the shrink sleeve. It would have been obvious to one of ordinary skill in the art at the time the invention was made to remove any excessive fiber outside the protection sleeve, since it has been held that removal of an element and its function in a combination where the remaining elements perform the same function as before involves only routine skill in the art. In re Karlson, 311 F.2d 581, 584, 136 USPQ 184, 186 (CCPA 1963) The motivation could be one of many reasons such as it is more visually aesthetically

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pleasing without the extra and non-functional fibers, or the WDM assembly would be less likely to become entangled with other wiry parts without the extra and non-functional fibers, or the complete removal of the extra and non-functional fibers would allow a better seal against the sleeves using the epoxy elements.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. PGPub 20020136508 to Donno et al. and U.S. Patent 5,171,345 to Takemura, on fusing of optical fibers;

U.S. Patent 6,406,197 to Okuda et al, on fabricating optical fiber couplers;

U.S. PGPub 20020067881 to Mathis, on a fused biconic taper coupler WDM;

U.S. Patent 5,761,351 to Johnson and 5,892,864 to Stoll et al., on optical coupler switching networks;

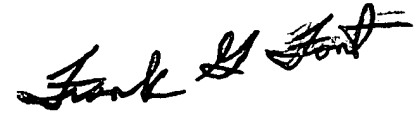
Japanese Patent JP 11006937 A to Showa Electric Wire & Cable Co., on a fused optical fiber WDM system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charlie Peng whose telephone number is (571) 272-2177. The examiner can normally be reached on 8:30 am - 5 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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